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EXAMINER
MAMO, ELIAS

ART UNIT	PAPER NUMBER
2184	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-11 and 13-27* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-11 and 13-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-7, 9-11, 13-17 and 22-27 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yokoyama (US 2002/0016875), herein after referred as Yokoyama

'875 in view of Ichinohe et al. (US 6,032,266), herein after referred to as Ichinohe et al.

'266.

Referring to **claim 2,** Yokoyama '875 teaches, as claimed, a data management system

(see fig. 1), comprising: a processor residing in a first application module (i.e.-CPU in

item 50, see fig. 1); and first and second data ports in said first application module (i.e.-

port 3 and 5 of Item 50, see fig. 1), wherein said first data port is adaptable to connect

said first application module to a controller module and said second data port is

adaptable to connect a second application module to said controller module (i.e.-host

PC is connected with item 50 thru port 3 and connected to item 60 thru port 5);

wherein said processor determines whether said controller module is connected to said

first application module by transmitting a first controller handshake signal through said

first data port while inhibiting data pass-through at said second data port (i.e.-processor

provides first control signal thru output terminal and determines if second control signal

has been input in response to the control signal, and controls the change-over switch to

inhibit data pass-through, page 1, paragraph 6, lines 22-26).

However, Yokoyama '875 does not explicitly teach, if said first handshake signal

does not result in communication with said controller module at said first port, said

processor determines whether said controller module is connected to said second

application module by transmitting a second controller handshake signal through said

second data port to establish communication with said controller module while inhibiting

data pass-through at said first data port.

On the other hand, Ichinohe et al. '266 discloses a method for changing a

route upon communication failure (col. 1, page 13-25).

At the time of the invention was made, it would have been obvious to a person of

ordinary skill in the art to modify the teachings of Yokohama '875 so that if said first

handshake signal does not result in communication with said controller module at said

first port, determining by the said processor whether said controller module is connected

to said second application module (i.e.-establish/change a new route upon failure of

establishing communication with an existing route), while inhibiting data pass-through at

said first data port (Note: once new/alternate communication route is established, then

data pass-thru is inhibited of the failed route), as taught by Ichinohe et al. '266. Further

more, at the time of the invention was made, it would have been obvious to a person of

ordinary skill in the art to transmit a second controller handshake signal through said

second data port to establish communication with said controller module, since it is

merely an alternate arrangement which falls with in the level of ordinary skill in the art.

The motivation for doing so would have been an increased reliability of a data

communication/ transfer system due to a standby/ alternate routing method by using a

system having redundant configuration.

As to **claim 3,** Yokoyama '875 teaches the system of claim 2, further comprising: a data

hub that includes said first and second ports (page 2, ¶ 23, line 8).

As to **claim 4,** Yokoyama '875 teaches the system of claim 3, wherein said data hub

comprises at least one switch connectable to alternately inhibit data pass-through at

said first and second ports (page 2, ¶ 23, line 12).

As to **claim 5,** Yokoyama '875 teaches the system of claim 2, wherein said processor

and said first and second ports are housed in an application module (see fig. 1, device

50 having first port 3, second port 5).

As to **claim 6,** Yokoyama '875 teaches the system of claim 2, further comprising: a

controller module in communication with said processor through said first port (see fig.1,

device 50 connected with device 40 thru first port 3).

As to **claim 7,** Yokoyama '875 teaches the system of claim 6, further comprising: an

application module in communication with said processor through said second port (see

fig. 1, port 3 of device 60 connected to CPU 9 of device 50).

As to **claim 9,** Yokoyama '875 teaches the system of claim 6, wherein said processor is

programmed to transmit an ID request to said controller module (see fig. 2,

configuration of control command).

As to **claim 10,** Yokoyama '875 teaches the system of claim 9, wherein said controller

module is programmed to transmit an application ID to said processor in response to

said ID request (see fig. 2, configuration of Ack).

As to **claim 11,** Yokoyama '875 teaches the system of claim 10, wherein said controller

module is programmed to append said application ID onto other data transmitted to said

processor (see fig. 2, configuration of Ack).

Referring to **Claim 13,** Yokoyama '875 teaches, as claimed, a method for coordinating

data flow (see fig. 8), comprising: providing a processor in a first application module

(i.e.-CPU in item 50, see fig. 1); providing first and second data ports in said first

application module (i.e.- port 3 and 5 of Item 50, see fig. 1), wherein said first data port

is adaptable to connect said first application module to controller module and said

second data port is adaptable to connect second application module to said controller

module (i.e.-host PC is connected with item 50 thru port 3 and connected to item 60 thru

port 5); determining whether said controller module is connected to said first application

module by transmitting a first handshake signal from said processor through a first data

port while inhibiting data pass-through at a second data port (i.e.-processor provides

first control signal thru output terminal and determines if second control signal has been

input in response to the control signal, and controls the change-over switch to inhibit

data pass-through, page 1, paragraph 6, lines 22-26).

However, Yokoyama '875 does not explicitly teach, if said first handshake signal

does not result in communication with said controller module at said first port,

determining whether said controller module is connected to said second application

module by transmitting a second handshake signal from said processor through said

second data port while inhibiting data pass-through at said first data port.

On the other hand, Ichinohe et al. '266 discloses a method for changing a

route upon communication failure (col. 1, page 13-25).

At the time of the invention was made, it would have been obvious to a person of

ordinary skill in the art to modify the teachings of Yokohama '875 so that if said first

handshake signal does not result in communication with said controller module at said

first port, determining by the said processor whether said controller module is connected

to said second application module (i.e.-establish/change a new route upon failure of

establishing communication with an existing route), while inhibiting data pass-through at

said first data port (Note: once new/alternate communication route is established, then

data pass-thru is inhibited of the failed route), as taught by Ichinohe et al. '266. Further

more, at the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to transmit a second controller handshake signal through said second data port to establish communication with said controller module, since it is merely an alternate arrangement which falls with in the level of ordinary skill in the art. The motivation for doing so would have been an increased reliability of a data communication/ transfer system due to a standby/ alternate routing method by using a system having redundant configuration.

As to **claim 14,** Yokoyama '875 teaches the method of claim 13, wherein said inhibiting of data pass-through at said first and second ports further comprises switching at least one switch in a hub that comprises said first and second ports (see fig. 1, device 50 with switch 11 and port 5a and 5b).

As to **claim 15**, Yokoyama '875 teaches the method of claim 13, further comprising: transmitting an ID request from said processor to a controller found to be present at one of said ports (see fig. 2, configuration of control command).

As to **claim 16,** Yokoyama '875 teaches the method of claim 15, further comprising: transmitting an application ID to said processor from said controller in response to said ID request (see fig. 2, configuration of ACK – response command).

As to **claim 17**, Yokoyama '875 teaches the method of claim 16, further comprising:

appending said application ID onto data retrieved by said controller module from a

memory (i.e.-appending ID number of transmission destinations apparatus, see fig. 2,

the ACK frame).

Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yokoyama '875 in view of Official Notice.

Referring to **claim 18,** Yokoyama '875 teaches, as claimed, a data management system

(see fig. 8), comprising: first and second data ports coupled to a processor (i.e.-port 3

and 5 of Item 50, see fig. 1), wherein said first data port is adaptable to connect said

first application module to a controller module and said second data port is adaptable to

connect a second application module to said controller module (i.e.-host PC is

connected with item 50 thru port 3 and connected to item 60 thru port 5); first

application module housing said processor and said first and second data ports (Note:

see item 50 in fig. 1),

However, Yokoyama '875 does not explicitly teach wherein said processor

determines whether said controller module is connected to said first application module

and said second application module by transmitting respective controller handshake

signals alternately through said first and second data ports while inhibiting data pass-

through at the respective other data port.

On the other hand, it was well known in the art to use handshake signals/
protocol by allowing the sender, to ask the receiver, if the device is ready to receive, or
for the receiver to reply with a positive/negative acknowledgement, and Official Notice of
such is taken.

Thus, it would have been obvious to a person of ordinary skill in the art to modify
the teachings of Yokoyama '875 and program the processor to determine whether said
controller module is connected to said first application module and said second
application module by transmitting respective controller handshake signals alternately
through said first and second data ports while inhibiting data pass-through at the
respective other data port, as was well known in the art at the time the invention was
made. The motivation for doing so would have been to establish or maintain devices or
programs in synchronization by exchanging messages or packets of data between two
systems.

As to **claim 19**, Yokoyama '875 teaches the data management system of claim 18,
further comprising: a data hub that comprises said plurality of data ports (see fig. 1).

As to **claim 20**, Yokoyama '875 teaches the data management system of claim 18,
further comprising: a controller in communication with said processor through one of
said plurality of data ports (see fig. 1).

As to **claim 21**, Yokoyama '875 innately teaches the data management system of claim

20, wherein said controller is further programmed to send an application ID to said

processor in response to receiving a transmission from said processor.

Referring to **claim 22**, Yokoyama '875 teaches, as claimed, a system configuration

method (see fig. 8), comprising: providing a processor in a first application module (i.e.-

CPU in item 50, see fig. 1); providing first and second ports in said first application

module (i.e.- port 3 and 5 of Item 50, see fig. 1), wherein said first port is adaptable to

connect said first application module to a controller module and said second port is

adaptable to connect a second application module to said controller module (i.e.-host

PC is connected with item 50 thru port 3 and connected to item 60 thru port 5);

determining whether a controller module is connected to said first application module by

transmitting a first handshake signal from said processor through said first port while

inhibiting data pass-through at said second port (i.e.-processor provides first control

signal thru output terminal and determines if second control signal has been input in

response to the control signal, and controls the change-over switch to inhibit data pass-

through, page 1, paragraph 6, lines 22-26).

However, Yokoyama '875 does not explicitly teach, if said first handshake signal

does not result in communication with said controller module at said first port,

determining whether said controller module is connected to said second application

module by transmitting a second handshake signal from said processor through said

second data port while inhibiting data pass-through at said first data port.

On the other hand, Ichinohe et al. '266 discloses a method for changing a route upon communication failure (col. 1, page 13-25).

At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Yokohama '875 so that if said first handshake signal does not result in communication with said controller module at said first port, determining by the said processor whether said controller module is connected to said second application module (i.e.-establish/change a new route upon failure of establishing communication with an existing route), while inhibiting data pass-through at said first data port (Note: once new/alternate communication route is established, then data pass-thru is inhibited of the failed route), as taught by Ichinohe et al. '266. Further more, at the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to transmit a second controller handshake signal through said second data port to establish communication with said controller module, since it is merely an alternate arrangement which falls with in the level of ordinary skill in the art. The motivation for doing so would have been an increased reliability of a data communication/ transfer system due to a standby/ alternate routing method by using a system having redundant configuration.

As to **claim 23**, Yokoyama '875 teaches the method of claim 22, further comprising: sending an ID request to said controller (see fig. 2, configuration of control command).

As to **claim 24**, Yokoyama '875 inherently teaches the method of claim 23, further

comprising: sending an application ID to said processor from said controller; wherein

said application ID represents an electronic address for said processor (i.e.-appending

ID number of transmission destinations apparatus, see fig. 2, the ACK frame).

As to **claim 25,** Yokoyama '875 inherently teaches the method of claim 22, further

comprising: inhibiting data pass-through at said second port while testing through said

first port (i.e.-the change-over switch connects one port at a time either connected to 5b

or 5a, see fig.1)

As to **claim 26**, Yokoyama '875 teaches the method of claim 22, sending an

acknowledgement from said controller to said processor (see fig. 2, configuration of

ACK – response command).

As to **claim 27,** Yokoyama '875 teaches the system of claim 2, wherein said second

application module is connected serially with said controller module and said processor

residing in said first application module (page 1, ¶ 5).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Yokoyama '875 in view of Ichinohe et al. '266 as applied to claim 2 above, and further in

view of Massimiliano Brocchini (*EasyDisk Removable USB Hard Disk Review*), herein

after referred to as Brocchini.

As to **claim 8**, Yokoyama '875 in view of common knowledge in the art teaches the

limitations of claim 7 as discussed above. However, Yokoyama '875 does not teach the

additional limitations of claim 8, wherein a plurality of memories detachably connected

to said controller module.

On the other hand, Brocchini teaches the limitations of claim 8, a memory that

can detachably be connected to controller module (i.e.-EasyDisk portable USB hard

drive, page 1, paragraph 1, lines 8-9).

Thus, at the time of the invention, it would have been obvious to one of ordinary

skill in the art, to modify the electronics apparatus of Yokoyama '875 in order to

detachably connect plurality of memories to the controller module, as taught by

Brocchini, using removable EasyDisk portable USB hard drive. The motivation for doing

so would have been the easy portability, its size, lightness, low cost and the ability of

transferring data from a PC to another in an easy and comfortable way (page 2, the

conclusions section).

Response to Arguments

Applicant's arguments filed on 10/08/2008 have been fully considered but are not

persuasive.

Applicants argued that the cited prior arts do not disclose or suggest **"...using a**

single processor to alternately determine whether a control module is connected

to one of several application modules by transmitting control handshake signals

through each of the data ports connecting the control module to the respective

application module while inhibiting data pass-through at the respective other data

port." (Page 7, last paragraph, line 4-page 8, lines 1-2; page 8, 6th paragraph; and page

9, 3rd paragraph)

The Examiner disagrees with the above statement. Yokoyama teaches that the

processor provides first control signal thru output terminal and determines if second

control signal has been input in response to the control signal, and controls the change-

over switch to inhibit data pass-through, page 1, paragraph 6, lines 22-26). Additionally,

Ichinohe et al. '266 discloses a method for changing a route upon communication failure

(col. 1, page 13-25).

By combining these teachings, at the time of the invention was made, it would

have been obvious to a person of ordinary skill in the art to modify the teachings of

Yokohama '875 so that if said first handshake signal does not result in communication

with said controller module at said first port, determining by the said processor whether

said controller module is connected to said second application module (i.e.-

establish/change a new route upon failure of establishing communication with an

existing route), while inhibiting data pass-through at said first data port (Note: once

new/alternate communication route is established, then data pass-thru is inhibited of the

failed route), as taught by Ichinohe et al. '266.

Further more, at the time of the invention was made, it would have been obvious

to a person of ordinary skill in the art to transmit a second controller handshake signal

through said second data port to establish communication with said controller module,

since it is merely an alternate arrangement which falls with in the level of ordinary skill in the art.

Applicants also requested a reference to be provided for the claims rejected relied up on Official Notice, and the Examiner provides Adusumilli et al. (US 6,701,405).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIAS MAMO whose telephone number is (571) 270-1726 and fax number (571) 270-2726. The examiner can normally be reached on Monday thru Thursday from 9 AM to 5 PM EST. The examiner can also be reached on alternate Friday.

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai, can be reached on (571) 272-4176 The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

     Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. M./
Examiner, Art Unit 2184

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184